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10/071,923	02/05/2002	Laszlo Papai	TCP:104 US	9881

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EXAMINER

SCHILLING, RICHARD L

ART UNIT	PAPER NUMBER
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1752

DATE MAILED: 09/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/07/923

Applicant(s)

Papai

Examiner

RL Schilling

Group Art Unit

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—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☒ Responsive to communication(s) filed on 7-24-03 (withdrawal from allowance).
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-19 is/are pending in the application.
- Of the above claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1-19 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
 - ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
 - ☐ received in Application No. (Series Code/Serial Number) _____.
 - ☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other _____

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1. This application has been withdrawn from allowance. Any inconvenience caused applicants is regretted. In view of the previous allowance of all of the claims, the restriction requirement is withdrawn or not repeated and all of the claims are examined.

2. Claims 1-19 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. The scope of the term "characterized by satisfactory developer performance" to describe the claimed compositions and methods of making them is indefinite in the instant claims. The meaning of the term is discussed on page 3 of the specification relative to complete and balanced development to industry-norm statistical standards. However, the statistical standards are not set forth in the specification. Values for the "corrected reference aims" on page 3 of the specification are not set forth. Also, the reference aims are not specifically limited but are rather cited to include minimum density. It would appear that the below cited and applied prior art, directed to improvements in color development processes will provide at least complete and balanced development of the full color image to industry-norm standards since the below applied prior art is at least trying to improve upon what is already known in the color development art.

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3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) The invention was described in (1) an application for patent, published under Section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 5, 7, 11, 16, 18 and 19 are rejected under 35 U.S.C. § 102(b) as being anticipated by Hashimoto et al. Hashimoto et al. (see particularly column 18, lines 23-41; column 19, lines 15-53; column 19, line 63 - column 20, line 22; column 21, line 39 - column 22, line 15; Example 2) discloses one part liquid concentrated color developer replenisher compositions

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comprising color developing agents, particularly CD-4 as set forth in the instant claims, buffers and polyhydroxy compounds to improve stability. The compositions are multiphase compositions comprising particles in liquid. To improve the solubility of the slurry and preserve color developing agent, i.e. extend the shelf life of the color developing agent, it is preferred that the color developer replenisher contains alkyl hydroxylamine compounds, particularly compound H-11 which is N,N-bissulfoethylhydroxylamine (SEHA). Preservative H-11 is one out of two preservatives disclosed in Hashimoto et al. in the method of making examples and the only ^{one} used in the method of use examples. Working Example 2 sets forth a concentrated color developer replenisher composition comprising color developing agent CD-4 and preservative SEHA as required by the instant claims.

The compositions of Hashimoto et al. fully meet the functional language of the instant claims. The compositions are color developer replenishers and are concentrated; the compound H-11 is used to extend the life, i.e. preserve, the color developer and the compositions have at least satisfactory color development performance according to Hashimoto et al. (see particularly column 2, lines 17-26; column 83, line 40 - column 84, line 46). Also, the concentrations of H-11 and CD-4 in Example 2 are within the ranges set forth on page 5 of

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applicants' specification. Since the compositions of Hashimoto et al. have the same ingredients as disclosed in applicants' specification at the same concentrations as disclosed in applicants' specification and are used for the same purposes as the ingredients in applicants' specification, i.e. color development and preservation of color developing agent, the compositions of Hashimoto et al. would inherently have the same properties as the compositions set forth in the instant claims. Also, the requirement of satisfactory developer performance is indefinite as explained in paragraph 2 above and is also subjective as to what one skilled in the art would consider to be satisfactory under different circumstances.

3. Claims 1-5, 7, 11, 16, 18 and 19 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Hashimoto et al. Hashimoto et al. (see particularly column 18, lines 23-41; column 19, lines 15-53; column 19, line 63 - column 20, line 22; column 21, line 39 - column 22, line 15; column 22, lines 36-46; column 23, lines 1-17) discloses concentrated color developer replenishing compositions comprising color developing agents, including CD-4, and hydroxylamine color developing agent preserving agents, particularly compound H-11 which is SEHA, along with other alkyl hydroxylamines which may be used in combination. Example 2 shows the combination of color developing agent CD-4 and hydroxylamine H-11. It would at least be obvious

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to one skilled in the art to use combinations of alkyl hydroxylamine compounds of Formula H in Hashimoto et al. in color developing replenishers wherein one of the alkyl hydroxylamine compounds is H-11 as used in all of the working Examples in Hashimoto et al. since Hashimoto et al. discloses using the compounds of Formula H in combination. Also, if Hashimoto et al. does not anticipate the instant claims, it would at least be obvious to one skilled in the art to use color developing agent preservative H-11 of Hashimoto et al. in combination with color developing agents disclosed in Hashimoto et al., particularly CD-4 specifically set forth in Hashimoto et al., to preserve the disclosed color developing agents in the replenisher solutions since compound H-11 is one out of only two specifically disclosed compounds within Formula H in Hashimoto and is used in the working Examples in Hashimoto et al. Also, the use of color developing agent CD-4 would at least be obvious in the replenishers of Hashimoto et al. since it is only one out of two specific color developing agents used in the working Examples in Hashimoto et al.

4. Claims 1, 2, 5-9, 12, 13 and 15-19 are rejected under 35 U.S.C. § 102(e) as being anticipated by Tappe et al. '703. Tappe et al. (see particularly column 2, lines 2-54; column 3, lines 34-60; Examples 13, 14, 16 and 19) disclose concentrated color developing agent replenishers comprising color developing

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agent CD-4 and antioxidant O-2, which is SEHA, as required by the instant claims to prevent oxidation of CD-4 and extend shelf life. The concentrated solutions may be two phase systems containing caprolactam solvent. Working Examples 13, 14, 16 and 19 show concentrated developer concentrate compositions comprising antioxidant O-2 and color developer CD-4 with Examples 13 and 19 being one phase systems and Examples 14 and 16 being multiphase systems comprising caprolactam. Working Example 20 in Tappe et al. discloses satisfactory color development performance identical to the quality of the prior art with the added benefit of additional stability in the concentrate compositions. Also, the functional requirement of satisfactory color development is indefinite and subjective as explained above.

5. Claims 1-19 are rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Darmon et al. '687 and Papai in view of Burns et al. and Hashimoto et al. further in view of Ishikawa et al. '930, Ishikawa et al. '520 and Marrese et al. Darmon et al. (see particularly column 3, lines 35-53; column 1, lines 40-55; Example 1; column 5, line 5 - column 6, line 75) and Papai (see particularly column 2, lines 30-65; column 5, line 58 - column 6, line 20; column 9, lines 31-53; column 9, lines 3-15, Examples 1 and 2) disclose liquid concentrated color developer replenishing compositions comprising color developing agents and preservatives or antioxidants for the

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color developing agents to extend shelf life including alkyl hydroxylamines. Papai discloses multiphase systems comprising caprolactam organic solvent. Both Darmon et al. and Papai also disclose the use of buffers ^{and} ~~in~~ the making of the concentrates including the step of removing precipitates, e.g. sodium sulfite. Darmon et al. and Papai disclose the use of dialkyl hydroxides as preservatives for the color developing agents; and Darmon et al. specifically incorporates Burns et al. by reference as disclosing suitable hydroxylamine antioxidants. Burns et al. (column 1, line 40 - column 2, line 15; column 4, lines 43-52; Example 2) discloses SEHA as a hydroxylamine antioxidant for use in color developing solutions. Papai and Darmon et al. do not specifically disclose the use of bis-sulfoethyl hydroxylamines as antioxidants in the working Examples but rather use diethyl hydroxylamines in their working Examples. However, Hashimoto et al. (see particularly Example 2) discloses the use of SEHA as an antioxidant in concentrated color developing solutions for color developing agent CD-4 as set forth in the instant claims as well as other known color developing agents wherein SEHA preserves the color developing agent and is the only hydroxylamine preservative used in the working Examples. Since Darmon et al. and Papai et al. generically encompass the use of SEHA hydroxylamine preservatives and Burns et al. and Hashimoto et al. specifically disclose them as hydroxylamine preservatives for color developing

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agents and C-4 color developing agents in concentrates as in Hashimoto et al., it would at least be obvious to one skilled in the art to use SEHA hydroxylamine preservatives as the called for hydroxylamine preservatives in Darmon et al. and Papai. One skilled in the art would further be motivated to use SEHA hydroxylamine preservatives as the antioxidants in the color developing replenisher concentrates of Darmon et al. and Papai et al. instead of ^{unsubstituted} ~~one~~ substituted alkyl hydroxylamine as used in the working Examples in Darmon et al. and Papai et al. in view of the disclosure in Marrese et al. (see particularly column 1, lines 34-60) that it is known to add water solubilizing groups, including sulfo, to hydroxylamine color developing agent antioxidants to reduce their release into the atmosphere as vapor, i.e. odor, by increasing their water solubility and the teachings in Ishikawa et al. '520 and Ishikawa et al. '930 that SEHA hydroxylamines are preferred in the art. Ishikawa et al. '520 (see particularly column 8, line 43 - column 9, line 57) and Ishikawa et al. '930 (see particularly column 15, line 44 - column 16, line 65) discloses color developer replenishing solutions comprising color developing agents, including CD-4, and preservatives which are preferably hydroxylamines. Among the hydroxylamines disclosed, the two Ishikawa et al. patents disclose that SEHA hydroxylamines as in the instant claims are most preferred. Therefore, one skilled in the art would be

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motivated to use the most preferred hydroxylamine antioxidant as disclosed in the two Ishikawa et al. patents for color developing replenisher compositions as the hydroxylamine preservatives for color developing agents in the replenishing compositions of Papai and Darmon et al. One skilled in the art would also be motivated to use sulfo substituted hydroxylamines, which would include SEHA known in the art as an hydroxylamine preservative for color developing agent, instead of unsubstituted alkyl hydroxylamines as used in Darmon et al. and Papai in order to provide color development replenisher concentrates in Darmon et al. and Papai wherein the hydroxylamine preservatives have increased water solubility and are not lost by release into the atmosphere by vaporization as much as unsubstituted alkyl hydroxylamines.

The comparisons in the specification have been considered but are unconvincing since it has not been shown that the results in the comparisons would be unexpected to one skilled in the art. One skilled in the art would expect that hydroxylamine antioxidants known in the art as being preferred as taught by Ishikawa et al. '520 and Ishikawa et al. '930 would provide better results than less preferred hydroxylamines, i.e. the unsubstituted diethyl hydroxylamines used as comparison compounds in applicants' specification. Also, in view of the teachings in Marrese et al., one skilled in the art would expect that the sulfo substituted ethyl hydroxylamines would be more

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water soluble than the unsubstituted ethyl hydroxylamine comparison compounds with less loss into the atmosphere by increased vapor pressure providing more antioxidant effect over time by reduced loss of antioxidant. Also, the comparisons in the specification are not commensurate in scope with the claimed subject matter. The comparisons are limited to developer replenisher compositions comprising caprolactam organic solvent while the instant claims include compositions without the organic solvents, single phase compositions, or with different organic solvents. Also, direct comparisons cannot be made between comparison Example 2 and invention Example 3 since Examples 2 and 3 contain potassium sulfite and potassium hydroxide in different amounts including 0. The sulfites, being known antioxidants, may be important to the reported results. The working Examples of the specification also only show that one known hydroxylamine antioxidant is better than another known hydroxyl antioxidant for use with the same color developer. The comparisons do not show that the improved results depend upon the particular color developing agent chosen. Showing that one known antioxidant is better than another does not show unexpected properties particularly when the applied prior art discloses that the antioxidant that provides the better results is preferred over the comparison antioxidant.

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6. Any inquiry concerning this communication should be directed to Mr. Schilling at telephone number (703) 308-4403.

RLSchilling:cdc

August 28,, 2003

RICHARD L. SCHILLING
PRIMARY EXAMINER
GROUP 1100-1752

